Newsletter of the Office of System Architecture & Program Evaluation (ASD)

Connections

JUNE 1996

Insights

Steve Zaidman
Acting Director, ASD-1

Strengthening Our Core Competencies

Acquisition reform, shrinking federal budgets, increased user involvement, growing demands on the National Airspace System — these factors and more require us to assess at this time how ASD can best support the agency and serve the aviation community.

These internal and external forces are causing us to re-focus on the essentials and to make sure that our core competencies are adequately supported and effectively organized.

As I see it, ASD has three core business competencies: **architecture, system engineering, and investment analysis**. ASD is the **architecture** leader for the agency. We are the trail-blazers for an integrated architecture that is technically sound and economically defensible, and I know much effort is directed to this end.

I would like to thank everyone involved with the NAS architecture work. This is one of the toughest jobs in the agency due to the complexity of issues, inter-dependencies, and coordination. This is also one of the most important responsibilities, because our work will help determine the FAA and industry's future direction and investments for the National Airspace System.

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Project Review

Key Architecture Issues Addressed Through Intra-Agency Teams

When the NAS Architecture Version 1.5 was released to the public in February as a "work in progress," it represented the first attempt at providing a comprehensive, understandable, and validated plan for NAS modernization to the aviation community, government officials, and the public.

NAS Architecture V1.5 contains these major elements: NAS Concept of Operations; NAS Service Requirements; NAS Systems, Programs and Transition Planning; NAS Roadmap; and NAS Issues. The NAS Issues element contains a collection of draft papers on the issues whose resolution would have major impact on the future of the NAS. Such strategic issues are related to communications, navigation, surveillance, decision support systems, environmental sensitivity, performance metrics, safety, special use airspace, flight services, and free flight.

These major NAS issues are being addressed by Issue Resolution Teams, whose members are comprised of subject matter experts from various FAA offices within ARA, ATS, AVR, as well as SETA, CAASD, and other support contractors.

The Issue Resolution Teams are led jointly by representatives from ASD-100 and ASD-400. The Issue Resolution Teams are empowered to analyze each issue thoroughly, from a political, operational, economic, and technical perspective, and recommend solutions for senior management. Detailed reviews on the progress of the issues resolution are conducted weekly.

Examples of some of the issues being dealt with are: What flight services should the FAA provide and how should they be provided? How will the FAA provide communications in the future NAS? How will surveillance be provided in the future NAS? How will Air Traffic Management Decision Support Systems evolve?

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Strengthening Our Core Competencies

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The architecture is the yardstick by which we will be measured. This is our highest priority.

Another core area is **system engineering**. We must maximize our system engineering skills and use them more in acquisition decisionmaking. We have not emphasized these system engineering skills and abilities and, as a result, we have not performed well over the last 1 1/2 years. I fully intend to revitalize and strengthen our system engineering work in the upcoming year. An important part of this revitalization is to ensure the utmost collaboration with and participation from the Integrated Product Teams (IPT). We and the IPTs are partners in system engineering.

As a means of developing the architecture and deciding technologies, quality **investment analysis** is required. ASD will play a major role in determining the FAA's future investment decisions. Our work will go beyond cost/benefit analysis to help provide a robust treatment of all reasonable acquisition alternatives. We will continue to work with industry to obtain its input and feedback. Our investment analyses must be of the highest quality if we are to succeed in our mission.

How will we ensure that we excel in our core competencies? We must have the right resources, best skills, and quality support and input. My expectations in this area are as follows:

Expertise: Our in-house expertise and performance must be of the highest level. We are building that team of technical and analytic experts when each of us increases our knowledge and experience in the latest technologies through continuing education and with the addition of new talent.

In-House Services: Our technical and analytic talent must be homegrown. I believe we have, over time, outsourced too much of our skill requirements. We must move to have a better balance between in-house and support services. We need to do more of our technical work inside of ASD and do less contract administration.

User Involvement: ASD's work must reflect the real world and marketplace forces. This requires greater contact and participation with the users who operate in the NAS. We will continue to expand our outreach into the domestic and international aviation community.

Just as the Federal Government and the FAA as a whole are experiencing a new way of working, ASD also will be changing to accomplish these things. There will be new people, new ways of working, new partnerships inside and outside the FAA, and new tasks. I ask for your support as we strengthen our organization to meet the changing FAA and aviation environment. ■

ASD Home Page on the World Wide Web

ASD
SYSTEM ARCHITECTURE AND PROGRAM EVALUATION

Information about major ASD activities is now available to the worldwide public via the Internet.

World Wide Web browsers can find out about the NAS Architecture and its 1.5 version; Free Flight implementation initiatives; the NAS planning documents, such as the Capital Investment Plan; and the Operations Research programs, including SIMMOD and the Center of Excellence.

This newsletter is also found on the ASD Home Page and can be viewed by downloading, free of charge, Acrobat software. In addition, general information about the organization and our activities is found under the *Discover ASD* button.

On a regular basis, new information will be posted on the ASD Home Page, so please check out the latest from time to time.

To get to the ASD Home Page, you can either go through the FAA Home Page or type in the internet address which is:
http://asd.orlab.faa.gov

From the FAA Home Page, click on *Research and Acquisitions* and then *System Architecture and Program Evaluation*. ■

ASD Mission

To provide the National Airspace System (NAS) architecture and supporting technical, programmatic, and economic analyses to support agency acquisitions and planning that deliver benefits to all NAS users and service providers. This is achieved by working together through a positively motivated, diverse, involved, and informed workforce.

ASD

Key Architecture Issues Addressed Through Intra-Agency Teams

(continued from page 1)

In moving to GPS, should the NAS retain any existing ground-based navaids? How do we quantify safety so that as we change the NAS one can determine impact?

It is recognized that many of these issues are cross-cutting, and solutions must take into account the total NAS impact. A number of these issues are being briefed to the Government/ Industry Free Flight Steering Committee's Architecture Working Group as a means of capturing industry's perspective. Final reports on the issues are due this summer. The internal release of the NAS Architecture (Version 2.0) is scheduled for the end of September, with public release by the end of December.

For more information on the Issue Resolution Teams, please contact: Joan Gariazzo, on detail to ASD-110, (202) 358-4977. ■

Personnel Reform: A Sea of Changes

Is it creating the illusion of progress while producing confusion, inefficiency, and demoralization, or is it really creating a difference? At least, that's the question some people are asking themselves. But, there is also another view: "What's going on?...it's scary!" It is much too early to tell where we are headed; however, one thing is for sure — life will never be the same. If you haven't heard by now, FAA is undergoing a metamorphosis in the personnel area. The old personnel management system is making way for the new, some of Title 5 plus PRIBs (Personnel Reform Implementation Bulletins), plus — well — stay tuned, it is still evolving.

Under the 1996 DOT Appropriations Act, Congress directed the agency to come up with a new personnel management system by April 1 that would meet its "unique" needs. It is hoped that the new system, affectionately referred to as "People Systems," will help the FAA better fulfill its mission and improve its ability to attract, motivate, reward, and train its personnel.

The new personnel management system was signed into place by Administrator David Hinson March 28. But that's not all that happened. The employees of the FAA became members of the "Federal Aviation Service (FAS)" — a new component of the Federal civil service. Employees of the FAA are no longer members of the competitive service but are now classified as excepted service.

Federal aviation service employees are exempted from coverage under Title 5, with the exception of those provisions covered by law and segments deemed appropriate by FAA. For instance, FAA's "People Systems" will, by law, still protect "whistleblowers," provide preference for veterans, require employee loyalty to the Federal Government and to civil order, prohibit strikes, restrict certain political activities, and prohibit discrimination. By choice, FAA has decided to continue following some parts of Title 5, such as those covering merit principles and prohibited personnel practices.

Why are we doing this? FAA has historically reported to Congress an inability to be as efficient and effective as possible under the current personnel system. It has continually sought congressional relief from competitive service restrictions that would allow it the freedom to deliver value to the American people. The job of personnel reform is to replace policies and procedures that have lost their effectiveness and no longer make any sense in today or tomorrow's environment. As Vice President Gore stated: " These new measures are what common sense government is all about: delivering value to the American people, cutting red tape and freeing the people of the FAA to act in a business-like way that encourages and rewards responsibility." The goal of FAA's personnel reform is to create a system that allows the FAA to work better and cost less while ensuring aviation safety and efficiency.

For the latest information on personnel reform, you can now access the details through the FAA's Home Page on the World Wide Web at http://www.faa.gov/. Additional information can also be obtained through the Headquarters' LAN which maintains two bulletin boards under #HRNEWS and #Reinventing HRM. The Office of Human Resources also has pamphlets available on the new "People Systems" that describes what personnel reform means to you.

For more information, contact: Francisco Estrada C., ASD-10, (202) 358-5257, who wrote the above article. ■

Architecture Working Group Underway to Support Free Flight

Steve Zaidman, acting director, ASD-1, and Ed Thomas of United Airlines are leading a group of government and industry representatives to address the architecture and technology issues within the Draft Free Flight Action Plan.

This Architecture Working Group supports the Government/Industry Free Flight Steering Committee recommended by RTCA and established in April. The Free Flight Steering Committee monitors the consensus and implementation progress of the Free Flight Action Plan and public outreach activities. The Steering Committee is co-chaired by Monte Belger, associate administrator of Air Traffic Services and the agency's steering committee management official; and Robert Baker, Executive Vice President, Operations, at American Airlines. They lead this government and industry committee that also includes representatives from Australia, Canada, and Denmark.

Charter of the Architecture Working Group

The Architecture Working Group is focused on communications, navigation/surveillance, and decision support systems, three areas where technology and issues have a major impact on the National Airspace System (NAS) Architecture and the implementation of Free Flight. Specifically, in the architecture area, the group's focus will be to:

- Identify air/ground communications technologies (voice and data) which meet future NAS needs;
- Define the extent, if any, to which existing ground navigation systems will be required to "back up" GPS and GPS wide area augmentation system (WAAS);
- Determine the timing and transition of functions to be fielded as part of decision support systems that provide new operational capabilities.

At the first meeting of the Architecture Working Group on May 2, it was decided to establish an industry and FAA lead for each area of study. For Communications, the leads are Tony Martelli of ARINC and Mike Harrison and Joan Gariazzo of ASD-100. For Navigation/Surveillance, Doug Helton of the Aircraft Owners and Pilots Association and Dave Olsen, ASD-120, are leads. Heading up the Decision Support Systems team are Earle Wolfe from American Airlines and Rich Fleagle, ASD-110.

The Architecture Working Group will meet every three weeks through August. The user perspective on key issues will be an important input into the NAS Architecture (Version 2.0) due September 30.

The overall goal of the working group is to recommend a free flight implementation approach that is operationally feasible, affordable, and beneficial to the users and providers.

ASD Investment Analysis Work

The Free Flight Steering Committee also requested that ASD-400 bring together industry, the international sector, and FAA to discuss and prepare an investment analysis method for Free Flight. Norm Fujisaki, Fran Melone, Bob Rovinsky, and Dave Winer, all of ASD-400, will provide the economic "glue" and guidance to the Architecture Working Group and the Procedures Working Group (co-chaired by Roger Wall, ATO-1, and Jack Ryan of Air Transport Association) to choose alternatives and prioritize work.

For more information, contact:
Don Eddy, ASD-100,
(202) 358-4966. ■

Notable Quotable

Change occurs only when there is a confluence of changing values and economic necessity.

— John Naisbitt and Patricia Aburdene, business writers and social researchers, *Re-inventing the Corporation*.

Legend for ASD Program Directorates

ASD-100	System Architecture & Integration
ASD-200	Program Evaluation
ASD-300	NAS Programming & Financial Management
ASD-400	Program Analysis & Operations Research
ASD-500	NAS Planning & Technical Support

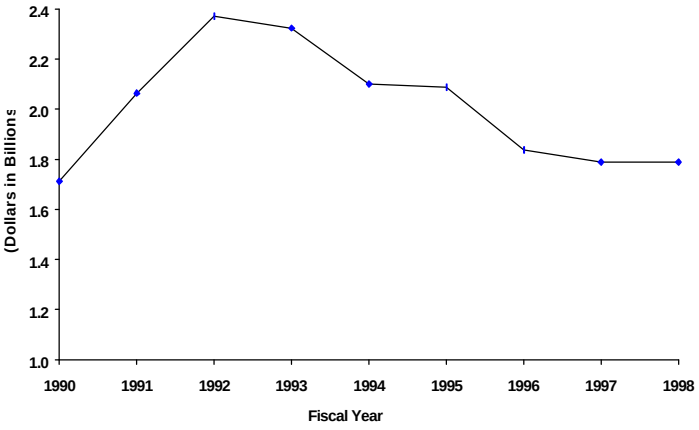
FY 1997 Budget Presented to Industry

With the FAA's Fiscal Year 1997 budget before Congress, Steve Zaidman, acting director of ASD, recently presented portions of the budget submission at the Air Traffic Control Association, Inc. (ATCA) Budget Symposium held in the Washington, DC area.

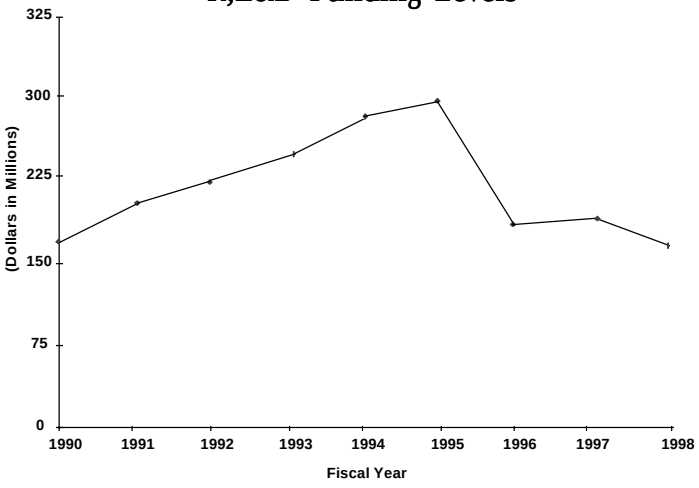
This annual presentation reviews the FAA's Facilities and Equipment (F&E) and the Research, Engineering, and Development (R,E&D) budgets. As Steve told the ATCA members, the FAA FY 1997 F&E and R,E&D budget submission to Congress reflected the Federal Government's initiative to have a balanced budget by the year 2000. The F&E submission this year totaled $1.789 billion, representing a decrease of more than $500 million over the last five years. The R,E&D submission to Congress totaled $195.7 million. This submission was $65 million less than the FY 95 Appropriation. (See following charts.)

Of most importance to the conference attendees was the list of programs that would receive funding in 1997. The top ten F&E and R,E&D programs are listed below. ■

F&E Funding Levels



R,E&D Funding Levels



F&E Projects in the FY 1997 Budget ($ in Millions)

Display System Replacement	$164.4
Voice Switching and Control System	117.0
Wide Area Augmentation System	74.5
Terminal Air Traffic Control Facilities	74.4
Standard Terminal Automation Replacement Systems	72.0
ARTCC Building Improvements	71.7
Oceanic Automation Program	40.6
Air Traffic Management	40.4
Integrated Terminal Weather System	28.0
Weather and Radar Processor	24.7

R,E&D Programs in the FY 1997 Budget ($ in Millions)

Human Factors Research	$19.5
Aeronautical Data Link	9.3
Satellite Navigation	9.0
Air Traffic Management Technology	6.8
Oceanic Automation	6.5
Airport Technology	6.0
Traffic Alert & Collision Avoidance System	5.6
Modeling, Analysis, & Simulation	4.1
Aviation System Capacity Planning	3.5
Separation Standards	3.1

Human Resource Management Update

ASD Mentoring Program Starts Soon

In view of the limited resources and funding available for training and developmental activities within the FAA, we must be creative in identifying existing resources to help meet the developmental needs of our employees. Toward that end, ASD is sponsoring a Mentoring Program open to all ASD employees. The Mentoring Program will capitalize on the experiences of successful agency employees who volunteer to help foster the skill improvement and professional growth of a less experienced employee.

The objectives of the program are as follows:

- To help employees enhance their technical and social skills through training and career development opportunities.
- To help employees familiarize themselves with the Agency's organizational structure.
- To acclimate employees to the standard practices and expectations of the Agency.
- To increase employee comfort levels, productivity, and career potential by improving the skills and abilities of employees in their present positions.
- To give participants, both mentors and mentees, experience, self confidence, and a broader range of knowledge.
- To provide an environment that encourages and supports employees to develop and expand their peer network.
- To assist management in developing motivated employees who wish to broaden their knowledge of the agency, and to develop the skills needed to meet our changing FAA environment.

The ASD Mentoring Program is a 1-year skill improvements program open to all ASD employees. Mentors and mentees will be solicited on a volunteer basis. Any employee can be a mentor at any grade level who has a specialized skill (i.e., communication, computer, analytical, etc.) Any employee who has development needs can be a mentee.

The new ASD Mentoring Program is scheduled to begin mid-July. This is a great opportunity for ASD employees to participate in a skill improvement program that can benefit all involved. So if you like challenges and are looking for growth, watch for the Mentoring Program Announcement and Guidelines in your mailbox soon!

For more information, contact:
Brenda Canoles, ASD-10,
(202) 358-5359. ■

Team Spotlight : ASD Employees Win Vice President's Hammer Award!

The FAA's Acquisition Reform and Personnel Reform Teams both received the Vice President's Hammer award, which recognizes the efforts of teams and individuals who have made a notable contribution in support of the National Performance Review ideals. These ideals include reducing "red-tape", empowering employees, and rebuilding a more customer oriented government.

In the 1980s, the Department of Defense was criticized by watchdog groups for purchasing overpriced products, such as a $600 hammer—satirized as the "golden hammer." The award is given by the Vice President to teams, usually of Federal employees, who have helped the government improve its efficiency. The actual award is a $6 dollar hammer mounted on a plaque that is given to the winning agency, while individuals receive a pewter-colored lapel pin shaped in the form of a hammer.

Congratulations to the following ASD employees for their outstanding efforts on the FAA's Acquisition Reform and Personnel Reform Teams!

Tom Bryan, *ASD-10*

Ken Byram, *ASD-200*

Ken Chin, *ASD-500*

Bev Daniel, *ASD-200*

Francisco Estrada C., *ASD-10*

Kyle Graybeal, *ASD-140*

Terry Hannah, *ASD-2*

Ed Harras, *ASD-110*

Leon Hillers, *ASD-310*

Jeff Hmara, *ASD-100*

Fran Melone, *ASD-410*

Art Politano, *ASD-500*

Bob Rovinsky, *ASD-420*

Carolyn Strano, *ASD-140*

Rich Turner, *ASD-200*

Stephany Watson, *ASD-500*

For more information, contact:
Francisco Estrada C., ASD-10,
(202) 358-5257. ■

1996 Heritage Day Picnic

May 23, 1996
Portals Courtyard

Employee News

If you have any employee information for the Employee News section of *Connections*, please send it to Chris Meier (202) 651-2228 or Scot Mackey (202) 651-2230 at ASD/SETA or your Human Resources Representative in ASD-10 .

Details

Sharon Black was detailed from ASD-10 to ASD-100 on May 20. Sharon will be working with Renie Keenley on administrative issues for ASD-100.

Debbie Frye was detailed from ASD-120 to ASD-100 on May 12 where she will act as secretary to the Deputy Director.

Irene Powell was detailed on May 20 from the ASD-1 Secretary to provide support for Ron Morgan during his detail to the Air Traffic Service organization.

Patti Mueller, ASD-2, has been temporarily promoted to the ASD-1 Secretary position while Irene is on detail.

Judith Gunn, ASD-3, has been temporarily promoted to the ASD-2 Secretary position while Patti fills in for Irene. This is a collateral duty. She continues as the ASD Correspondence Control Specialist.

Gary Rowland was detailed to ASD-100 on May 13 working on the Investment Analysis Decision process for the next 6 weeks. Gary came from the Oceanic IPT.

Arrivals/Promotions

Bob Bernard joined ASD-100 as support contracts manager on March 17. Bob held various positions in his 28 years with the FAA, including Program Manager for Navigation, Division Manager for Navigation and Landing, acting Division Manager for Surveillance, Special Assistant to the Associate Administrator for NAS Development, and Manager of the FAA's Civil Aviation Assistance Group in Madrid Spain.

William Blake has just joined ASD as the new communications team lead in ASD-120. He came from AND-650 where he worked for the Data Link IPT. Previously, he worked on FANG (FMS-ATM Next Generation), oceanic in-trail climb, and multiple parallel approach procedures R,E,&D work. Bill retains his co-chairmanship of RTCA SC169 Working Group 5, ATM-AOC ground-to-ground data communications applications.

Richard Cox joined ASD-400 on April 14 from his former position as Deputy Director, Air Traffic Systems Management (ATM-2). Richard's primary responsibility is the economic analysis (cost/benefit) for major research and acquisition decisions.

Avdesh Kaushiva joined ASD-140 on May 12. He will be responsible for NAS CCB functions such as reviewing NCPs, coordinating technical comments with must reviewers and briefing upper management on technical and programmatic issues related to NAS changes. He will also be looking at improving the CM process in the area of CCB operating procedures and charters. Prior to joining ASD, Avdesh spent the past 4 years working for the National Oceanic and Atmospheric Administration (NOAA).

Dr. Feisal Keblawi was selected as ASD-110 lead on Airports and Security for the NAS Architecture. Feisal came from ASD-120, where for the last 5 months, he worked on the NAS Infrastructure Management supporting the NIMS IPT. Prior to joining ASD, Feisal spent several years in the Communications IPT where he managed the implementation of NADIN II (Packet Switched Network) and the acquisition of the Buoy Communication System.

Vickie Kennedy from the Office of Acquisitions (ASU) was selected to serve as the Contracting Officer Technical Representative for the CAASD contract in ASD-500.

Brandy Lohse recently joined ASD-120 as the Surveillance Team Leader. She will be leading the work to integrate new surveillance technologies into the NAS Architecture. Brandy comes to us from Spectrum Planning and International Division (ASR-200) at headquarters. Previously she was an engineer in the Eastern Region.

Pamela Myers was promoted on May 26 as secretary to the Program Director, ASD-100. Pam came from ASD-300 where she was the secretary for ASD-310.

David Piszczek came from the National Oceanic and Atmospheric Association to join ASD-140 on March 31 as a general engineer supporting the ASD configuration management effort. Prior to the FAA, Dave spent 2 years working for the National Weather Service in their configuration management effort, and he also worked for the Army in its Center for Night Vision.

John Scardina was named Program Director for System Architecture and Integration, ASD-100. Previously, John was the lead for the Traffic Flow Management Integrated Product Team, AUA-500.

Vincent Schultz, ASD-110, has been promoted as the lead for outreach efforts associated with NAS architecture work. Vince has spent the past 5 years with the FAA as a systems engineer for weather and flight services and, most recently as a system architecture representative to the flight services IPT.

Robert Wein, Program Director, System Architecture and Integration, ASD-100, was named to lead ASD-200 as the Program Director for Program Evaluation.

Departures

Ken Byram, Program Director for Program Evaluation, ASD-200, has been reassigned to the Office of Acquisitions where he will be the Deputy Director, ASU-2.

Jeff Hmara, Deputy Director for System Architecture and Integration, ASD-101, has been reassigned to AND-100 where he will be the IPT Lead for Infrastructure.

Michael Lam, a member of the technical staff of ASD-500, accepted a position with Airway Facilities (AAF) on May 12.

James Wetherly of ASD-110 accepted a position with the Office of Air Traffic Systems Development (AUA) on March 17.

Eric Yarrow, co-op student from ASD-130, left the FAA on March 15 to join the private sector.

ASD Awards

Since January 1996, the following ASD employees have been recognized for their outstanding efforts!

Judith Bain
Bob Bernard
Vinod Bhatnagar
Sharon Black
Steve Bradford
Kevin Bridges
Tom Bryan
Brenda Canoles
Yong Cha
James Chen
Daniel Citrenbaum
Lillian Cruz-Bradford
John Cullen
Linda Durrett
Francisco Estrada C.
Betty Falato
Ellis Feldmen
Eldon Fisher
Debbie Frye
Joyce Gantt
Gerson Grosfeld
Jose Gutierrez
Edgar Harras
Edward Harris
Joan Harris
Michael Harrison
Jacqueline Herbert
Brenda Hoban
Allan Lewis
Louis Mayo
Michael McVeigh
Fran Melone
James Melton
Vernell Neal
Edward Nedimala
Stephanie Neumann
Marion Normandy
Gail Rollins
Leon Sayadian
Vincent Schultz
Cyril Shepherd
Evan Soffer
Linda Springer
Mary Stephens-Loggins
Carol Stone
John Sullivan
Mary Tabron
Laura Taylor
Rebecca Taylor
Charles Thorpe
Margaret Volk
Robert Watson
James Wetherly
Pamela Wright
Darrell Wyrick
Cherie Wood

For more information, contact:
Judith Bain, ASD-10,
(202) 358-5114. ■

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